

**Federal Agencies White Paper on Application of the 5-point Policy
To the Bay Delta Conservation Plan
April 29, 2010**

At the March 25, 2010 Steering Committee, the Delta Science Program presented their review of the “Logic Chain” approach to refining biological goals and objectives. The Services have reviewed that report and provide the following recommendations, based on that report and the Services’ “5-point Policy” for HCPs (65 Fed. Reg. 35242 (June 1, 2000)).

The Endangered Species Act (ESA) criteria for issuance of an incidental take permit (ITP) under section 10 include a finding that the incidental taking of listed species from the permittee’s activities “will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.” (16 USC § 1539(a)(2)(B)(iv)) This finding necessarily requires a judgment on the results – or outcome – of implementing the plan.

In making the required finding, NMFS and FWS must analyze the likely effects of the taking over the life of the permit, which in the case of the BDCP is 50 years. There is substantial uncertainty regarding the effects on listed species of a new water conveyance system and of water withdrawal, combined with effects of other human activities and natural phenomena that are reasonably certain to occur, over a time period as long as 50 years. This uncertainty is compounded by both the complexity of the Delta ecosystem and the predicted future increases in temperature and climate variability.

To support the required finding, therefore, the conservation plan must take into account the high degree of uncertainty of outcomes of conservation measures and provide a mechanism for adjusting measures to achieve the desired outcomes (adaptive management). An agreement to simply implement specific actions is not sufficient to support the finding unless the analysis demonstrates at the outset a reasonable likelihood that the actions will be successful.

The Services’ 5-Point Policy, an addendum to the HCP Handbook, acknowledges the need to address uncertainty in HCPs. The Policy states that HCPs should include explicit biological goals and objectives, which provide the basis for the plan’s conservation measures. 65 Fed. Reg. at 35250-51. Where there is uncertainty as to the likelihood that the conservation measures will achieve the biological goals and objectives, the plan should incorporate monitoring and adaptive management to increase the likelihood that the plan will meet its conservation goals. The Policy states that “an adaptive management strategy is essential for HCPs that would otherwise pose a significant risk to the species at the time the permit is issued due to significant data or information gaps.” 65 Fed. Reg. at 35352. Some of the data gaps and sources of uncertainty for the BDCP include the following:

- The level of actual benefits that will be realized by the covered species from the restoration of tidal marsh and floodplain habitat;
- The level of predation that might occur at the new in-river structures and the

- effect that such predation might have on listed species viability;
- The impacts to listed species and critical habitat resulting from the removal of a significant proportion of river flows directly from the Sacramento River in the north delta;
- The effectiveness of certain proposed measures to control stressors such as non-native predators, other invasive species, chemical contaminants, and wastewater runoff;
- The extent of hydrologic changes resulting from climate change; and
- The extent of added stress on anadromous fish from changes in ocean conditions, including warming and acidification.

A results-based HCP is appropriate when flexibility is needed and the permittee will retain ongoing management authority over an activity for the long term. In the 5-Point Policy, the Services distinguish between a prescription-based HCP and a results-based HCP. The Services stated:

A prescription-based HCP outlines a series of tasks that are designed to meet the biological goals and objectives. This type of HCP may be most appropriate for smaller permits where the permittee would not have an ongoing management responsibility. A results-based HCP has flexibility in its management so that the permittee may institute the actions that are necessary as long as they achieve the intended result (i.e., the biological goals and objectives), especially if they have a long-term commitment to the conservation program of the HCP. HCPs can also be a mix of the two strategies.

65 Fed. Reg. at 35351.

The BDCP is a complex, landscape scale, long-term HCP with a high degree of uncertainty as to how close the initial conservation measures will come to achieving the plan's biological goals and objectives. It falls into the category of plans that will be a mixture of the two strategies, with initial prescriptions associated with adaptive management, and specific biological outcomes defining the ultimate success of the plan. This type of plan will allow management flexibility so the permittee may institute actions necessary to achieve the plan's goals while providing boundaries for future expectations and commitments. In addition, a results-based plan will address uncertainty in the ecosystem and provide the conservation assurances required by the Act. The Services will be challenged to make the findings required for permit issuance if the plan does not include clearly defined and scientifically supported biological goals and objectives, an adaptive management plan that tests alternative strategies for meeting those biological goals and objectives, and a framework for adjusting future conservation actions, if necessary, based on what is learned.

The recent Delta Science Program's review of the proposed "Logic Chain" process provides excellent insight and recommendations for developing program goals and objectives. The science panel found that the logic chain approach (with a few recommended revisions) should continue to be developed and applied, in order

to clearly articulate and link goals, objectives, actions, and outcomes. (See attached diagram illustrating the Logic Chain approach.) We urge you to incorporate the recommendations from the Delta Science Program review into the process to develop biological goals and objectives for the BDCP. Completing the logic chain process by following the guidance and recommendations of the science panel is essential to developing a plan that will include the necessary elements for permit issuance, and more importantly, one that will be successful.